

Docket No. «IMPORT_CASEJCPI_DOCKET_NO»
US App. No. «APPLICATION_NO»

IN THE CLAIMS:

1. (currently amended) A quick connector comprising:

a body having a center through hole, a constrictor groove formed in said center through hole and having a front wall, an intermediate straight annular wall and an upper-sloped annular wall, and an O-shaped ring fitted in the constrictor groove;

a tube constrictor inserted in the constrictor groove of said body, and having a flange formed in an outer end, a center hole for a tube to extend therein, a plurality of upright elastic petals spaced apart equidistantly and extending down from said flange, every two of said elastic petals separated by a gap, said elastic petals respectively having an innermost portion, said innermost portion having a pointed tip formed at its end and a clamp member formed integral on an inner surface to push against an outer surface of the tube inserted in said center hole of said tube constrictor, each said clamp member having an inclined surface shaped to conform to an outer surface of the tube and having an inner diameter D1 shorter than that of said center hole of said tube constrictor and an angle (θ) smaller than 80 degrees to firmly constrict the tube;

wherein, when the tube constrictor is pushed deep into the constrictor groove, the each said pointed tip engages with the O-shaped ring so as to move the each said clamp member away from the outer surface of the tube.

2. (currently amended) A quick connector comprising:

a body having a center through hole, a constrictor groove formed in said center through hole and having a front wall, an intermediate annular wall and an upper-sloped annular wall, and an O-shaped ring fitted in the constrictor groove;

a tube constrictor to be inserted in the constrictor groove, and having a flange formed in an outer end, a center hole for a tube to extend therein, a plurality of upright elastic petals spaced apart and extending down from said flange, every two of said elastic petals separated by a gap, said elastic petals respectively having an innermost portion, said innermost portion having a pointed tip formed at its end and a clamp member formed on an inner surface to push against an outer surface of the tube inserted in said center hole of said tube constrictor; wherein each said clamp member has an inclined surface shaped to conform to an outer surface of the tube and has an inner diameter D1 shorter than that of said center hole of said tube constrictor;

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wherein, when the tube constrictor is pushed deep into the constrictor groove, the each said pointed tip engages with the O-shaped ring so as to move the each said clamp member away from the outer surface of the tube.

3. (currently amended) The quick connector of claim 2, wherein the each said pointed tip of said innermost portion has an inclined inner surface and an upright outer surface, when the tube constrictor is pushed deep into the constrictor groove, the inclined inner surface of the pointed tip is forced against an outer sidewall of the O-shaped ring so as to more move the clamp member away from the outer surface of the tube.